

## **SUMMARY**

### **100 Percent Compliance with both SO<sub>2</sub> and NO<sub>x</sub> Requirements in 1998**

All 713 boilers and combustion turbines (referred to as “units”) affected by the SO<sub>2</sub> and NO<sub>x</sub> regulations of the Acid Rain Program in 1998 successfully met their emissions compliance obligations.

- ◆ All 408 units subject to SO<sub>2</sub> requirements in 1998 held sufficient allowances to cover their emissions. Of the 5,300,861 allowances deducted from compliance accounts almost all (5,298,498 or 99.96 percent) were for emissions, but other deductions were also made as required by the Acid Rain Program regulations.
- ◆ All 540 units subject to the NO<sub>x</sub> requirements in 1998 demonstrated compliance with applicable annual emission limitations. Of these 540 units, 235 were also subject to SO<sub>2</sub> requirements, while 305 units were affected only for NO<sub>x</sub> (30 Phase I units and 275 Phase II “early election” units).

### **1998 SO<sub>2</sub> Emissions of Phase I Units were 24 Percent Below Allowable Level**

SO<sub>2</sub> emissions in 1998 were 1.7 million tons (or 24 percent) below the 7 million ton allowable level as determined by 1998 allowance allocations. Since an additional 7.9 million allowances were carried over, or banked, from 1997, the overall number of allowances available in 1998 was 14.9 million, of which affected units consumed only about 35 percent. Actual emissions for the 408 units participating in 1998 were 5.3 million tons, down 180,000 tons from emissions of the 423 units affected in 1997.

### **1998 Phase I Unit NO<sub>x</sub> Emission Rates 41 Percent Below 1990; NO<sub>x</sub> Tons 29 Percent Lower Than in 1990**

Emission rates for the 265 Phase I utility units dropped by 41 percent below 1990 levels, from an average of 0.70 pounds of NO<sub>x</sub> per million Btu of heat input (lb/mmBtu) to an average of 0.41 lbs/mmBtu; this rate is 16 percent below the compliance rate of 0.49 lbs/mmBtu for these units. NO<sub>x</sub> emission levels for these units were 390,254 tons (or 29 percent) below 1990 levels.

### **1998 NO<sub>x</sub> Emission Rates of Early Election Units Even Lower Than Rates for Phase I Units**

For the 275 Phase II units which elected to meet Phase I NO<sub>x</sub> rates early, emission rates dropped from an average of 0.46 lbs/mmBtu in 1990 to 0.38 lbs/mmBtu in 1998, a 17 percent decrease and 19 percent below the compliance rate of 0.47 lbs/mmBtu for these units. Therefore, while utilization of these units increased by 28 percent between 1990 and 1998, NO<sub>x</sub> tons increased by only 8 percent.

## **Monitoring Performance Excellent Once Again**

For the fourth year of the Acid Rain Program, the continuous emission monitors used by participants continue to provide some of the most accurate and complete data ever collected by the EPA. Statistics reflect excellent monitor operation of all units affected by both Phase I and Phase II of the program.

Accuracy: SO<sub>2</sub> monitors achieved a median relative accuracy (i.e., deviation from the reference test method) of 3.0 percent; flow monitors, 3.0 percent; and NO<sub>x</sub> monitors, 3.1 percent.

Availability: SO<sub>2</sub> and flow monitors achieved a median availability of 99.5 and 99.7 percent, respectively, while NO<sub>x</sub> monitors achieved a median reliability of 99.2 percent.

## **SO<sub>2</sub> Market Active; Volume of Allowances Transferred Between Distinct Entities in 1998 Continues to Increase**

Activity in the allowance market continued to increase in 1998. The volume of allowances transferred between unrelated parties in economically significant trades increased from 7.9 million in 1997 to 9.5 million in 1998.